## ABSTRACT OF THE DISCLOSURE

A process for the qualitative and quantitative determination of at least one in vitro amplified nucleic acid in a sealed reaction chamber,

- wherein during or subsequent to the amplification of the nucleic acid at least one substance (probe) is present which interacts with the nucleic acid to be detected;
- wherein spectroscopically measurable parameters of said substance (probe) are subject to variation, creating a measurable signal;
- wherein the sample to be measured is exposed to the action of a gradient capable of at least partially denaturing nucleic acids;
- with detection of the measurable parameter undergoing variation through the action of the gradient; and
- the entire amplification reaction, including qualitative and quantitative determination, may be carried out in a sealed reaction chamber (measuring compartment) without intermittent opening,

permitting to automatically operate the diagnostic method of DNA and RNA amplification in qualitative and quantitative fashion on large series of samples.